National Park Service
U.S. Department of the Interior

Fire Island National Seashore
New York

2006 Tide Tables

Fire Island National Seashore

A blanket of white blossoms on beach plum shrubs heralds the arrival of spring on Fire Island.

Fire Island National Seashore was established in September 1964 **"for the purpose of conserving and preserving for the use of future generations certain relatively unspoiled and undeveloped beaches, dunes, and other natural features within Suffolk County, New York, which possess high values to the Nation."**

Off-road driving regulations help protect natural beaches and primary dunes at Fire Island National Seashore, while providing a reasonable amount of access to island developments.

Welcome to Fire Island National Seashore. The dynamic beaches here are constantly changing, providing a new scenic landscape with every tide. To maintain Fire Island's remote character and natural resources, beach driving is limited.

The privilege of driving on the beach is extended for some recreational uses and to a limited number of residents, contractors, essential service providers, public utilities and official vehicles to gain access to communities within the park's boundary. Permits must be obtained for all off-road driving on Fire Island. Unpermitted vehicles are restricted to roads and parking lots near the bridges connecting Fire Island to Long Island.

The dunes are the backbone of this barrier island that buffers Long Island from the forces of the Atlantic Ocean. Naturally formed dunes consist of multilayered roots and rhizomes of beach grass (*Ammophila breviligulata*) that hold together many layers of sand. Beach grass is easily damaged by foot or vehicle traffic. To protect the dunes, never drive within twenty feet of the base of the dune or the vegetation line.

Thank you for your efforts to help preserve and protect Fire Island.

Beneath its visible leaves, beach grass rhizomes and rootlets secure grains of sand that form the protective primary dune.

Mycorrhyzal fungi bind sand grains to rootlets, enhancing resistance to erosion.

Dynamic Barrier Islands

From Long Island, New York to Brownsville, Texas, a string of barrier islands adorns the United States' coastline. Fire Island is one of Long Island's five South Shore barriers.

Barrier islands are large dynamic sandbars, which are constantly moving and changing. They are shaped by the local tide ranges and wave climates, availability and sources of sediment, and the influence of sea-level rise and human manipulations. Fire Island—32 miles long and oriented on an east-west axis with a south-facing shoreline—normally migrates from the east to the west with its prevailing alongshore current.

In 1826, the first Fire Island Lighthouse was built on the western end of the island, at the east side of the Fire Island inlet. Today, Fire Island Inlet is more than 5 miles west of the lighthouse's foundation. The beach is constantly changing due to the cyclic erosion and accretion of sand. Inlets historically change due to washovers and erosion on a larger scale.

The Fire Island to Montauk Point (FIMP) Reformulation Study is a comprehensive collaborative effort among federal, state and local agencies to identify storm damage reduction measures along the south shore of Long Island. Respecting the primary dune line is perhaps the best protection against catastrophic change on Fire Island that we can make as responsible beach users.

Even though Fire Island is the only developed barrier island in the nation without a road running through it, breaching of the island would change existing human activities such as access for maintenance, construction, power and telephone utilities, and public safety patrols. However, breaches and overwash expand the width of the barrier, nourish bayside marshes, provide the foundation for newly developing dunes, and create wildlife habitat.

Overwashes are a cyclical part of the changing form of barrier islands.

The recreational driving season of 2005 was cancelled due to an eroded shoreline and several wash-overs on Fire Island's beach in front of the Otis Pike Fire Island High Dune Wilderness.

Beach Driving Permits

A valid permit is required for every vehicle driven on Fire Island beaches. Each Fire Island National Seashore permit has its own stipulations and requirements. Vehicles may not cross dunes, damage or drive within 20 feet of vegetation, or enter the designated wilderness area. *Smith Point County Park and Robert Moses State Park have separate recreational use permits.*

Sportsman's Vehicle Permits (Recreational)

Recreational vehicles are permitted to drive on designated portions of Fire Island National Seashore beach (see map, page 14) as a means of access for fishing or hunting. Permits may be purchased at the Otis Pike Wilderness Visitor Center on or after September 1, for use between September 15 and December 31, unless beach conditions prevent or restrict driving activities. Call 631-281-3010 for hours of operation.

Non-Recreational Vehicle Permits

A limited number of resident, contractor, public utility and essential service vehicles may be allowed access, subject to conditions established for each individual permit. (Alternative means of transportation are used whenever possible.) Applications for non-recreational vehicle permits are made through the Chief Ranger's Office at Fire Island National Seashore, 120 Laurel Street, Patchogue, NY 11772. Call 631-687-4758 for more information.

New driving regulations are being developed. See www.nps.gov/fiis/negreg for the latest information.

During the Negotiated Rulemaking process to establish new driving regulations, all agreed that "What can come by water will come by water."

At certain times of the year, beach traffic may need to be diverted through some of the Fire Island communities.

While roads through these communities do not easily accommodate the 4-wheel drive vehicles needed for driving on the beach, this is a sacrifice most people are willing to make in order to retain the character of Fire Island's communities.

Access to Fire Island Communities

When Fire Island National Seashore was established in 1964, its enabling legislation stated that seventeen communities and preexisting commercial uses would be allowed to remain, as long as construction was consistent with zoning ordinances established by the Secretary of the Interior.

Many people in the Fire Island communities supported the establishment of the national seashore in order to protect themselves from a parkway proposed to run down the middle of Fire Island, connecting Robert Moses Causeway with Smith Point bridge. The protection afforded by the national seashore helped stop the development of the parkway and has allowed Fire Island's historic communities to remain intact.

Today, these communities thrive within the boundaries of Fire Island National Seashore and contribute to the island's unique qualities. Each community has its own character, providing a great diversity of experiences for visitors and residents.

A limited number of resident, contractor, public utility and essential service vehicles may be allowed to drive on the beach and over National Park Service land to access private properties or provide services for the homes and businesses on Fire Island. *Home ownership does not automatically entitle one to a vehicle permit.*

If you are fortunate enough to have one of the coveted driving permits, please remember to be respectful of the park's and communities' resources and infrastructure. Whenever driving on the beach or through the communities, always be alert for and considerate of the people who share the road, and always be respectful of private property rights.

How Can I Get a Permit?

- Permit numbers for the various categories of driving are very limited and restrictive to both intended uses and times of travel. Additional information can be obtained by contacting the **Chief Ranger's office** at **631-687-4758** or **631-687-4757**.

Never underestimate the power of the ocean.

Normally, vehicle travelling east—on the ocean side—has the right-of-way.

National Park Service rangers and Suffolk County Police Marine Bureau patrol Fire Island National Seashore, enforcing driving regulations on the beach and on other park lands.

Off-Road Vehicle Rules and Regulations

Designated Use Only

Recreational vehicles are permitted on Fire Island beaches as a means of access for fishing and hunting activities only. Non-recreational vehicles are permitted access only under the conditions stipulated in each permit.

Check In

All drivers must stop at a check station when entering or leaving the beach. After a full stop, proceed at 5 m.p.h. until reaching the beach.

Speed Limits

Speed limit is 5 m.p.h. within 100 feet of pedestrians, near a beach entrance, or near posted endangered species habitat or stopped vehicles. Maximum speed on beach is 20 m.p.h..

Prohibited Activities

Riding on tailgates or bumpers, building fires, camping on the beach, and letting dogs off leash are not allowed. Feeding wildlife and possessing metal detectors are prohibited.

Stay 20 Feet Away from Dune Vegetation

To protect the fragile primary dunes, these rules are strictly enforced: drive at least 20 feet from the base of dune or vegetation line to protect the fragile root system (rhizomes). If surf approaches the 20 foot boundary, the beach will be closed to driving. Always stay to the seaward side of any posts. **Never drive on, through or behind the dunes.**

Beach Closures

- Fire Island beaches may be closed to driving at any time due to storms, extremely high tides, or other hazardous conditions.
- Summer vehicle access is restricted to special or essential services and law enforcement.
- The beach from the Wilderness Visitor Center at Smith Point to Long Cove will be closed to driving from March 16 through Labor Day (later if required), in compliance with the park's endangered species habitat protection plan.
- Recreational drivers may not enter the beach through the open emergency vehicle entrance when the recreational driving gate is closed.
- If the west end beach is closed, non-recreational permittees must use the inside route (Burma Trail).

Weekend Restrictions

From September 15 through October 31, no entry is allowed on the beach between 9 a.m. and 6 p.m. on Saturdays, Sundays, and holidays. Recreational vehicles (from Long Cove to Smith Point) that enter before 9 a.m. may remain on beach, but upon departure, may not re-enter until 6 p.m.
Contractors, residents, municipal and essential service drivers have additional weekend restrictions.

The ocean tide on Fire Island is semi-diurnal (twice a day). Its average tidal range (amplitude) is about 4 feet (1.25 meters).

Time beach driving carefully. As a rule of thumb, Fire Island beaches are generally passable from 3 hours before to 3 hours after low tide.

Never drive on beach grass. The 20-foot "Rhizome Rule" was established to help protect and encourage the growth of dunes.

A weakened dune line leaves homes and habitats behind it more vulnerable to storm damage, and increases the island's susceptibility to a breach.

Understanding Tides

Approximately 70 percent of the Earth's surface is covered by a relatively thin layer of water, which responds to the gravitational attraction of the sun and moon with a daily cycle of high and low tides. Times can be predictable and vary by location. This booklet contains the Moriches Inlet tides for 2006.

Tide changes occur from east to west. Correlations between tides at two different points are neither exact nor consistent, but the map in this booklet will help you estimate the tide for your location. Keep in mind that storms or high winds may cause more extreme tides. The "feet" columns list how many feet above or below mean low water each tide is expected to be.

Tide Adjustments

Ocean Side, Fire Island:

Talisman/Barrett Beach: + 10 minutes
Fire Island Lighthouse Beach: + 15 minutes
Fire Island Breakwater: + 18 minutes

on Great South Bay:

Point O'Woods: + 3 1/2 hours
Sayville (Browns River): + 4 1/2 hours
Patchogue River: +5 hours

Driving Safety

For your safety, carry a jack and jack board, spare tire, shovel, tow line with chain or hook, tire pressure gauge, first aid kit, and fire extinguisher. Always lower tire pressure to 15-20 psi (pounds per square inch) to prevent washboard tracks. On the beach, stay in established tracks and **at least 20 feet seaward of the beach grass.**

If You Become Stuck in the Sand...

- Do not spin your tires. Spinning will dig the vehicle in deeper.
- Check to make sure you are in four-wheel drive.
- Lower tire pressure to **15-18 psi**. (Use caution below 15 psi.)
- Dig a small amount of sand away from the front and rear of all four tires.
- If you are really buried, jack up all four wheels in turn and shovel sand underneath.
- Slowly attempt to drive backwards into your tire tracks where the sand is compacted.
- Keep front tires straight while trying to free your vehicle.
- Proceed evenly, keeping up your momentum and speed without spinning your tires.

Tow Service is not readily available on Fire Island

January 2006

Date		High		Low		High		Low		High	
		time	feet	time	feet	time	feet	time	feet	time	feet
Sunrise: 7:15 am Sunset: 4:34 pm											
Sunday	**Jan. 1**			**1:06 a.m.**	**-0.3**	**7:24 a.m.**	**3.7**	**1:54 p.m.**	**-0.6**	**7:56 p.m.**	**2.9**
Monday	Jan. 2			1:57 a.m.	-0.4	8:15 a.m.	3.6	2:41 p.m.	-0.6	8:51 p.m.	2.9
Tuesday	Jan. 3			2:48 a.m.	-0.3	9:09 a.m.	3.5	3:28 p.m.	-0.5	9:48 p.m.	2.9
Wednesday	Jan. 4			3:41 a.m.	-0.2	10:06 a.m.	3.3	4:16 p.m.	-0.4	10:45 p.m.	3.0
Thursday	Jan. 5	.		4:39 a.m.	-0.1	11:02 a.m.	3.0	5:09 p.m.	-0.3	11:41 p.m.	3.0
Friday	Jan. 6			5:45 a.m.	0.1	11:58 a.m.	2.9	6:06 p.m.	-0.2		
Saturday	Jan. 7	12:36 a.m.	3.0	6:56 a.m.	0.2	12:55 p.m.	2.7	7:06 p.m.	-0.1		
Sunrise: 7:15 am Sunset: 4:41 pm											
Sunday	**Jan. 8**	**1:32 a.m.**	**3.0**	**8:03 a.m.**	**0.2**	**1:55 p.m.**	**2.5**	**8:04 p.m.**	**0.0**		
Monday	Jan. 9	2:30 a.m.	3.0	9:03 a.m.	0.1	2:57 p.m.	2.4	8:59 p.m.	0.0		
Tuesday	Jan. 10	3:29 a.m.	3.0	9:58 a.m.	0.1	3:58 p.m.	2.4	9:50 p.m.	0.1		
Wednesday	Jan. 11	4:23 a.m.	3.0	10:49 a.m.	-0.1	4:53 p.m.	2.4	10:39 p.m.	0.0		
Thursday	Jan. 12	5:13 a.m.	3.1	11:37 a.m.	-0.1	5:42 p.m.	2.5	11:26 p.m.	0.0		
Friday	Jan. 13	5:57 a.m.	3.1	12:22 p.m.	-0.1	6:26 p.m.	2.5				
Saturday	Jan. 14			12:12 a.m.	0.0	6:37 a.m.	3.2	1:03 p.m.	-0.2	7:08 p.m.	2.5
Sunrise: 7:13 am Sunset: 4:48 pm											
Sunday	**Jan. 15**			**12:55 a.m.**	**0.0**	**7:16 a.m.**	**3.1**	**1:42 p.m.**	**-0.2**	7:49 p.m.	2.5
Monday	Jan. 16			1:35 a.m.	0.0	7:54 a.m.	3.0	2:18 p.m.	-0.1	8:30 p.m.	2.5
Tuesday	Jan. 17			2:13 a.m.	0.1	8:30 a.m.	2.9	2:52 p.m.	-0.1	9:11 p.m.	2.5
Wednesday	Jan. 18			2:50 a.m.	0.2	9:07 a.m.	2.8	3:24 p.m.	0.0	9:51 p.m.	2.5
Thursday	Jan. 19			3:27 a.m.	0.2	9:44 a.m.	2.6	3:54 p.m.	0.1	10:31 p.m.	2.5
Friday	Jan. 20			4:06 a.m.	0.4	10:23 a.m.	2.5	4:25 p.m.	0.2	11:10 p.m.	2.5
Saturday	Jan. 21			4:53 a.m.	0.5	11:06 a.m.	2.4	5:02 p.m.	0.3	11:52 p.m.	2.5
Sunrise: 7:09 am Sunset: 4:56 pm											
Sunday	**Jan. 22**			**5:54 a.m.**	**0.5**	**11:54 a.m.**	**2.2**	**5:53 p.m.**	**0.4**		
Monday	Jan. 23	12:38 a.m.	2.6	7:07 a.m.	0.5	12:49 p.m.	2.2	7:01 p.m.	0.4		
Tuesday	Jan. 24	1:32 a.m.	2.7	8:14 a.m.	0.4	1:54 p.m.	2.2	8:09 p.m.	0.3		
Wednesday	Jan. 25	2:34 a.m.	2.9	9:14 a.m.	0.2	3:04 p.m.	2.2	9:10 p.m.	0.2		
Thursday	Jan. 26	3:38 a.m.	3.0	10:10 a.m.	0.0	4:10 p.m.	2.4	10:08 p.m.	0.0		
Friday	Jan. 27	4:37 a.m.	3.3	11:04 a.m.	-0.2	5:08 p.m.	2.6	11:04 p.m.	-0.2		
Saturday	Jan. 28	5:31 a.m.	3.5	11:56 a.m.	-0.5	6:00 p.m.	2.9				
Sunrise: 7:04 am Sunset: 5:05 pm											
Sunday	**Jan. 29**			**12:01 a.m.**	**-0.4**	**6:21 a.m.**	**3.7**	**12:45 p.m.**	**-0.6**	**6:50 p.m.**	**3.0**
Monday	Jan. 30			12:53 a.m.	-0.5	7:10 a.m.	3.7	1:33 p.m.	-0.7	7:40 p.m.	3.2
Tuesday	Jan. 31			1:45 a.m.	-0.5	8:00 a.m.	3.7	2:19 p.m.	-0.8	8:32 p.m.	3.2

February 2006

Date		High		Low		High		Low		High	
		time	feet	time	feet	time	feet	time	feet	time	feet
Wednesday	Feb. 1			2:35 a.m.	-0.5	8:52 a.m.	3.5	3:03 p.m.	-0.7	9:25 p.m.	3.2
Thursday	Feb. 2			3:27 a.m.	-0.4	9:45 a.m.	3.2	3:49 p.m.	-0.5	10:19 p.m.	3.2
Friday	Feb. 3			4:21 a.m.	-0.2	10:40 a.m.	3.0	4:36 p.m.	-0.3	11:12 p.m.	3.1
Saturday	Feb. 4			5:21 a.m.	0.0	11:35 a.m.	2.7	5:30 p.m.	-0.1		
Sunrise: 6:57 am Sunset: 5:13 pm											
Sunday	**Feb. 5**	**12:06 a.m.**	**3.0**	**6:29 a.m.**	**0.2**	**12:31 p.m.**	**2.5**	**6:31 p.m.**	**0.1**		
Monday	Feb. 6	1:02 a.m.	2.9	7:39 a.m.	0.2	1:31 p.m.	2.3	7:35 p.m.	0.2		
Tuesday	Feb. 7	2:01 a.m.	2.8	8:43 a.m.	0.2	2:35 p.m.	2.2	8:36 p.m.	0.3		
Wednesday	Feb. 8	3:04 a.m.	2.8	9:39 a.m.	0.2	3:39 p.m.	2.2	9:31 p.m.	0.2		
Thursday	Feb. 9	4:03 a.m.	2.8	10:29 a.m.	0.1	4:36 p.m.	2.4	10:21 p.m.	0.2		
Friday	Feb. 10	4:55 a.m.	2.9	11:16 a.m.	0.1	5:24 p.m.	2.5	11:08 p.m.	0.1		
Saturday	Feb. 11	5:39 a.m.	3.0	11:58 a.m.	-0.1	6:07 p.m.	2.6	11:53 p.m.	0.1		
Sunrise: 6:49 am Sunset: 5:22 pm											
Sunday	**Feb. 12**	**6:18 a.m.**	**3.0**	**12:38 p.m.**	**-0.1**	**6:46 p.m.**	**2.7**				
Monday	Feb. 13			12:35 a.m.	0.0	6:55 a.m.	3.0	1:14 p.m.	-0.2	7:23 p.m.	2.7
Tuesday	Feb. 14			1:14 a.m.	0.0	7:29 a.m.	3.0	1:48 p.m.	-0.2	7:59 p.m.	2.7
Wednesday	Feb. 15			1:52 a.m.	0.0	8:02 a.m.	2.9	2:19 p.m.	-0.1	8:34 p.m.	2.7
Thursday	Feb. 16			2:28 a.m.	0.1	8:35 a.m.	2.8	2:47 p.m.	-0.1	9:08 p.m.	2.7
Friday	Feb. 17			3:02 a.m.	0.1	9:08 a.m.	2.7	3:14 p.m.	0.1	9:41 p.m.	2.7
Saturday	Feb. 18			3:37 a.m.	0.2	9:43 a.m.	2.5	3:40 p.m.	0.2	10:17 p.m.	2.7
Sunrise: 6:40 am Sunset: 5:30 pm											
Sunday	**Feb. 19**			**4:17 a.m.**	**0.4**	**10:25 a.m.**	**2.4**	**4:11 p.m.**	**0.3**	**10:59 p.m.**	**2.7**
Monday	Feb. 20			5:08 a.m.	0.4	11:15 a.m.	2.3	4:54 p.m.	0.4	11:50 p.m.	2.7
Tuesday	Feb. 21			6:21 a.m.	0.5	12:14 p.m.	2.2	6:05 p.m.	0.5		
Wednesday	Feb. 22	12:50 a.m.	2.8	7:40 a.m.	0.4	1:22 p.m.	2.2	7:35 p.m.	0.4		
Thursday	Feb. 23	1:59 a.m.	2.9	8:47 a.m.	0.2	2:37 p.m.	2.3	8:48 p.m.	0.2		
Friday	Feb. 24	3:11 a.m.	3.0	9:46 a.m.	0.0	3:48 p.m.	2.5	9:51 p.m.	0.0		
Saturday	Feb. 25	4:16 a.m.	3.3	10:40 a.m.	-0.2	4:49 p.m.	2.8	10:49 p.m.	-0.2		
Sunrise: 6:30 am Sunset: 5:39 pm											
Sunday	**Feb. 26**	**5:13 a.m.**	**3.5**	**11:32 a.m.**	**-0.5**	**5:42 p.m.**	**3.1**	**11:45 p.m.**	**-0.4**		
Monday	Feb. 27	6:04 a.m.	3.7	12:21 p.m.	-0.7	6:31 p.m.	3.3				
Tuesday	Feb. 28			12:39 a.m.	-0.5	6:53 a.m.	3.7	1:08 p.m.	-0.7	7:20 p.m.	3.5

March 2006

Date		High time	High feet	Low time	Low feet	High time	High feet	Low time	Low feet	High time	High feet
Wednesday	Mar. 1			1:30 a.m.	-0.6	7:41 a.m.	3.6	1:53 p.m.	-0.7	8:08 p.m.	3.6
Thursday	Mar. 2			2:20 a.m.	-0.6	8:31 a.m.	3.5	2:36 p.m.	-0.7	8:58 p.m.	3.5
Friday	Mar. 3			3:09 a.m.	-0.4	9:23 a.m.	3.2	3:20 p.m.	-0.4	9:49 p.m.	3.4
Saturday	Mar. 4			4:00 a.m.	-0.2	10:17 a.m.	2.9	4:05 p.m.	-0.2	10:42 p.m.	3.2
Sunrise: 6:19 am Sunset: 5:47 pm											
Sunday	**Mar. 5**			**4:56 a.m.**	**0.1**	**11:12 a.m.**	**2.7**	**4:55 p.m.**	**0.1**	**11:36 p.m.**	**3.0**
Monday	Mar. 6			6:00 a.m.	0.2	12:09 p.m.	2.5	5:56 p.m.	0.4		
Tuesday	Mar. 7	12:31 a.m.	2.9	7:11 a.m.	0.4	1:08 p.m.	2.3	7:06 p.m.	0.5		
Wednesday	Mar. 8	1:31 a.m.	2.7	8:17 a.m.	0.4	2:11 p.m.	2.2	8:12 p.m.	0.5		
Thursday	Mar. 9	2:35 a.m.	2.7	9:14 a.m.	0.4	3:15 p.m.	2.3	9:09 p.m.	0.5		
Friday	Mar. 10	3:36 a.m.	2.7	10:03 a.m.	0.3	4:12 p.m.	2.4	10:00 p.m.	0.4		
Saturday	Mar. 11	4:30 a.m.	2.8	10:46 a.m.	0.2	5:00 p.m.	2.6	10:46 p.m.	0.2		
Sunrise: 6:08 am Sunset: 5:54 pm											
Sunday	**Mar. 12**	**5:14 a.m.**	**2.9**	**11:26 a.m.**	**0.1**	**5:42 p.m.**	**2.8**	**11:30 p.m.**	**0.1**		
Monday	Mar. 13	5:53 a.m.	3.0	12:04 p.m.	0.0	6:19 p.m.	2.9				
Tuesday	Mar. 14			12:12 a.m.	0.1	6:28 a.m.	3.0	12:40 p.m.	-0.1	6:54 p.m.	3.0
Wednesday	Mar. 15			12:52 a.m.	0.0	7:02 a.m.	3.0	1:13 p.m.	-0.1	7:27 p.m.	3.0
Thursday	Mar. 16			1:30 a.m.	0.0	7:35 a.m.	2.9	1:44 p.m.	0.0	7:58 p.m.	3.0
Friday	Mar. 17			2:06 a.m.	0.0	8:06 a.m.	2.9	2:13 p.m.	0.1	8:28 p.m.	3.0
Saturday	Mar. 18			2:41 a.m.	0.1	8:39 a.m.	2.7	2:41 p.m.	0.2	8:59 p.m.	3.0
Sunrise: 5:56 am Sunset: 6:02 pm											
Sunday	**Mar. 19**			**3:16 a.m.**	**0.2**	**9:15 a.m.**	**2.5**	**3:08 p.m.**	**0.2**	9:36 p.m.	3.0
Monday	Mar. 20			3:54 a.m.	0.2	10:00 a.m.	2.5	3:41 p.m.	0.4	10:23 p.m.	2.9
Tuesday	Mar. 21			4:43 a.m.	0.4	10:54 a.m.	2.4	4:26 p.m.	0.5	11:20 p.m.	2.9
Wednesday	Mar. 22			5:52 a.m.	0.5	11:56 a.m.	2.3	5:38 p.m.	0.5		
Thursday	Mar. 23	12:24 a.m.	2.9	7:13 a.m.	0.4	1:06 p.m.	2.4	7:16 p.m.	0.5		
Friday	Mar. 24	1:35 a.m.	3.0	8:22 a.m.	0.3	2:18 p.m.	2.5	8:32 p.m.	0.4		
Saturday	Mar. 25	2:47 a.m.	3.1	9:21 a.m.	0.1	3:28 p.m.	2.7	9:36 p.m.	0.1		
Sunrise: 5:44 am Sunset: 6:09 pm											
Sunday	**Mar. 26**	**3:53 a.m.**	**3.3**	**10:14 a.m.**	**-0.2**	**4:28 p.m.**	**3.1**	**10:34 p.m.**	**-0.1**		
Monday	Mar. 27	4:51 a.m.	3.5	11:04 a.m.	-0.4	5:21 p.m.	3.4	11:29 p.m.	-0.4		
Tuesday	Mar. 28	5:43 a.m.	3.6	11:52 a.m.	-0.5	6:10 p.m.	3.7				
Wednesday	Mar. 29			12:22 a.m.	-0.5	6:32 a.m.	3.6	12:39 p.m.	-0.6	6:56 p.m.	3.8
Thursday	Mar. 30			1:13 a.m.	-0.5	7:21 a.m.	3.5	1:25 p.m.	-0.5	7:43 p.m.	3.8
Friday	Mar. 31			2:02 a.m.	-0.5	8:10 a.m.	3.3	2:09 p.m.	-0.4	8:30 p.m.	3.7

April 2006

Date		High time	High feet	Low time	Low feet	High time	High feet	Low time	Low feet	High time	High feet
Saturday	Apr. 1			2:50 a.m.	-0.4	9:01 a.m.	3.1	2:52 p.m.	-0.2	9:20 p.m.	3.5
Sunrise: 6:33 am Sunset: 7:17 pm											
Sunday *	**Apr. 2**			**4:39 a.m.**	**-0.1**	**10:55 a.m.**	**2.9**	**4:36 p.m.**	**0.1**	**11:12 p.m.**	**3.3**
Monday	Apr. 3			5:30 a.m.	0.1	11:51 a.m.	2.7	5:25 p.m.	0.4		
Tuesday	Apr. 4	12:06 a.m.	3.0	6:29 a.m.	0.4	12:47 p.m.	2.5	6:22 p.m.	0.6		
Wednesday	Apr. 5	1:01 a.m.	2.9	7:37 a.m.	0.5	1:44 p.m.	2.4	7:32 p.m.	0.7		
Thursday	Apr. 6	1:58 a.m.	2.7	8:43 a.m.	0.5	2:43 p.m.	2.4	8:42 p.m.	0.8		
Friday	Apr. 7	2:58 a.m.	2.7	9:39 a.m.	0.5	3:43 p.m.	2.4	9:41 p.m.	0.7		
Saturday	Apr. 8	3:58 a.m.	2.7	10:26 a.m.	0.4	4:39 p.m.	2.6	10:32 p.m.	0.5		
Sunrise: 6:22 am Sunset: 7:24 pm											
Sunday	**Apr. 9**	**4:52 a.m.**	**2.7**	**11:07 a.m.**	**0.3**	**5:27 p.m.**	**2.8**	**11:18 p.m.**	**0.4**		
Monday	Apr. 10	5:39 a.m.	2.9	11:46 a.m.	0.2	6:09 p.m.	3.0				
Tuesday	Apr. 11			12:03 a.m.	0.2	6:20 a.m.	2.9	12:24 p.m.	0.1	6:47 p.m.	3.1
Wednesday	Apr. 12			12:45 a.m.	0.1	6:58 a.m.	3.0	1:01 p.m.	0.1	7:21 p.m.	3.2
Thursday	Apr. 13			1:27 a.m.	0.1	7:34 a.m.	2.9	1:36 p.m.	0.1	7:53 p.m.	3.3
Friday	Apr. 14			2:07 a.m.	0.0	8:08 a.m.	2.9	2:10 p.m.	0.1	8:24 p.m.	3.3
Saturday	Apr. 15			2:45 a.m.	0.0	8:42 a.m.	2.8	2:43 p.m.	0.2	8:55 p.m.	3.3
Sunrise: 6:11 am Sunset: 7:31 pm											
Sunday	**Apr. 16**			**3:23 a.m.**	**0.1**	**9:18 a.m.**	**2.7**	**3:16 p.m.**	**0.2**	**9:30 p.m.**	**3.3**
Monday	Apr. 17			4:01 a.m.	0.1	9:59 a.m.	2.6	3:50 p.m.	0.4	10:13 p.m.	3.2
Tuesday	Apr. 18			4:43 a.m.	0.2	10:50 a.m.	2.5	4:29 p.m.	0.4	11:05 p.m.	3.2
Wednesday	Apr. 19			5:33 a.m.	0.3	11:48 a.m.	2.5	5:20 p.m.	0.5		
Thursday	Apr. 20	12:06 a.m.	3.1	6:37 a.m.	0.4	12:51 p.m.	2.5	6:36 p.m.	0.6		
Friday	Apr. 21	1:10 a.m.	3.0	7:50 a.m.	0.4	1:56 p.m.	2.6	8:05 p.m.	0.6		
Saturday	Apr. 22	2:17 a.m.	3.0	8:56 a.m.	0.2	3:02 p.m.	2.8	9:18 p.m.	0.4		
Sunrise: 6:00 am Sunset: 7:39 pm											
Sunday	**Apr. 23**	**3:24 a.m.**	**3.1**	**9:53 a.m.**	**0.1**	**4:06 p.m.**	**3.0**	**10:21 p.m.**	**0.2**		
Monday	Apr. 24	4:29 a.m.	3.2	10:45 a.m.	-0.1	5:05 p.m.	3.3	11:18 p.m.	-0.1		
Tuesday	Apr. 25	5:28 a.m.	3.3	11:34 a.m.	-0.3	5:58 p.m.	3.7				
Wednesday	Apr. 26			12:12 a.m.	-0.2	6:22 a.m.	3.3	12:23 p.m.	-0.4	6:46 p.m.	3.8
Thursday	Apr. 27			1:05 a.m.	-0.4	7:12 a.m.	3.3	1:11 p.m.	-0.4	7:32 p.m.	3.9
Friday	Apr. 28			1:56 a.m.	-0.4	8:00 a.m.	3.3	1:57 p.m.	-0.2	8:18 p.m.	3.9
Saturday	Apr. 29			2:45 a.m.	-0.4	8:49 a.m.	3.2	2:43 p.m.	-0.1	9:04 p.m.	3.7
Sunrise: 5:51 am Sunset: 7:46 pm											
Sunday	**Apr. 30**			**3:32 a.m.**	**-0.2**	**9:40 a.m.**	**3.0**	**3:27 p.m.**	**0.1**	**9:52 p.m.**	**3.5**

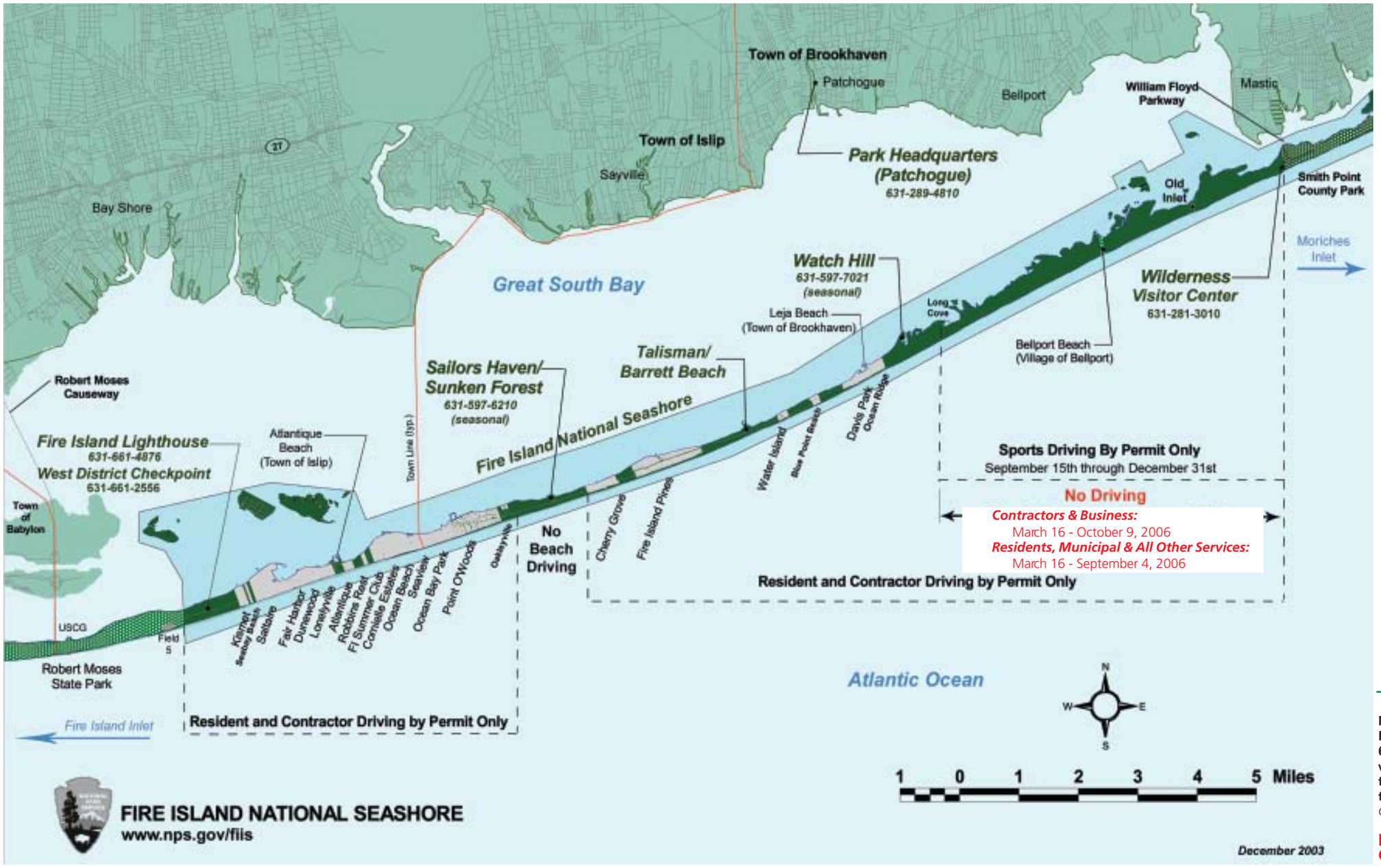
*** Daylight Savings Time begins**

May 2006

Date		High		Low		High		Low		High	
		time	feet	time	feet	time	feet	time	feet	time	feet
Monday	May 1			4:18 a.m.	-0.1	10:34 a.m.	2.8	4:11 p.m.	0.3	10:43 p.m.	3.3
Tuesday	May 2			5:06 a.m.	0.2	11:29 a.m.	2.7	4:58 p.m.	0.5	11:36 p.m.	3.0
Wednesday	May 3			5:58 a.m.	0.4	12:24 p.m.	2.5	5:50 p.m.	0.7		
Thursday	May 4	12:29 a.m.	2.9	6:57 a.m.	0.5	1:17 p.m.	2.5	6:54 p.m.	0.8		
Friday	May 5	1:22 a.m.	2.7	7:58 a.m.	2.7	2:10 p.m.	2.5	8:03 p.m.	0.8		
Saturday	May 6	2:15 a.m.	2.7	8:53 a.m.	0.5	3:04 p.m.	2.6	9:04 p.m.	0.8		
Sunrise: 5:42 am Sunset: 7:53 pm											
Sunday	**May 7**	**3:10 a.m.**	**2.6**	**9:39 a.m.**	**0.5**	**3:57 p.m.**	**2.7**	**9:57 p.m.**	**0.7**		
Monday	May 8	4:04 a.m.	2.7	10:21 a.m.	0.4	4:46 p.m.	2.9	10:46 p.m.	0.5		
Tuesday	May 9	4:56 a.m.	2.7	11:01 a.m.	0.3	5:30 p.m.	3.1	11:31 p.m.	0.4		
Wednesday	May 10	5:42 a.m.	2.7	11:40 a.m.	0.2	6:09 p.m.	3.2				
Thursday	May 11			12:16 a.m.	0.2	6:25 a.m.	2.8	12:19 p.m.	0.2	6:46 p.m.	3.4
Friday	May 12			1:00 a.m.	0.1	7:04 a.m.	2.8	12:59 p.m.	0.2	7:21 p.m.	3.5
Saturday	May 13			1:44 a.m.	0.1	7:42 a.m.	2.8	1:39 p.m.	0.2	7:55 p.m.	3.5
Sunrise: 5:35 am Sunset: 8:00 pm											
Sunday	**May 14**			**2:26 a.m.**	**0.0**	**8:21 a.m.**	**2.8**	**2:19 p.m.**	**0.2**	**8:32 p.m.**	**3.5**
Monday	May 15			3:08 a.m.	0.0	9:03 a.m.	2.7	2:59 p.m.	0.3	9:14 p.m.	3.5
Tuesday	May 16			3:50 a.m.	0.0	9:51 a.m.	2.7	3:41 p.m.	0.4	10:02 p.m.	3.4
Wednesday	May 17			4:35 a.m.	0.1	10:46 a.m.	2.7	4:28 p.m.	0.4	10:58 p.m.	3.3
Thursday	May 18			5:25 a.m.	0.1	11:45 a.m.	2.7	5:24 p.m.	0.5	11:58 p.m.	3.2
Friday	May 19			6:22 a.m.	0.2	12:45 p.m.	2.8	6:35 p.m.	0.5		
Saturday	May 20	12:58 a.m.	3.2	7:26 a.m.	0.2	1:44 p.m.	2.9	7:53 p.m.	0.5		
Sunrise: 5:29 am Sunset: 8:07 pm											
Sunday	**May 21**	**1:59 a.m.**	**3.1**	**8:27 a.m.**	**0.1**	**2:43 p.m.**	**3.1**	**9:03 p.m.**	**0.4**		
Monday	May 22	3:01 a.m.	3.0	9:24 a.m.	0.0	3:43 p.m.	3.3	10:05 p.m.	0.2		
Tuesday	May 23	4:04 a.m.	3.0	10:16 a.m.	-0.1	4:41 p.m.	3.5	11:02 p.m.	0.1		
Wednesday	May 24	5:05 a.m.	3.0	11:06 a.m.	-0.1	5:34 p.m.	3.7	11:56 p.m.	-0.1		
Thursday	May 25	6:01 a.m.	3.1	11:55 a.m.	-0.1	6:24 p.m.	3.8				
Friday	May 26			12:48 a.m.	-0.2	6:53 a.m.	3.1	12:44 p.m.	-0.1	7:11 p.m.	3.8
Saturday	May 27			1:39 a.m.	-0.2	7:42 a.m.	3.0	1:33 p.m.	0.0	7:56 p.m.	3.8
Sunrise: 5:24 am Sunset: 8:13 pm											
Sunday	**May 28**			**2:27 a.m.**	**-0.2**	**8:31 a.m.**	**3.0**	**2:20 p.m.**	**0.1**	**8:41 p.m.**	**3.7**
Monday	May 29			3:13 a.m.	-0.1	9:20 a.m.	2.9	3:05 p.m.	0.2	9:28 p.m.	3.5
Tuesday	May 30			3:57 a.m.	0.0	10:12 a.m.	2.7	3:48 p.m.	0.4	10:16 p.m.	3.2
Wednesday	May 31			4:41 a.m.	0.2	11:04 a.m.	2.7	4:32 p.m.	0.5	11:06 p.m.	3.0

June 2006

Date		High		Low		High		Low		High	
		time	feet	time	feet	time	feet	time	feet	time	feet
Thursday	June 1			5:25 a.m.	0.3	11:56 a.m.	2.6	5:19 p.m.	0.7	11:54 p..m.	2.9
Friday	June 2			6:13 a.m.	0.4	12:45 p.m.	2.6	6:13 p.m.	0.8		
Saturday	June 3	12:42 a.m.	2.8	7:04 a.m.	0.5	1:33 p.m.	2.6	7:16 p.m.	0.9		
Sunrise: 5:21 am Sunset: 8:18 pm											
Sunday	**June 4**	**1:29 a.m.**	**2.7**	**7:56 a.m.**	**0.5**	**2:20 p.m.**	**2.7**	**8:20 p.m.**	**0.8**		
Monday	June 5	2:18 a.m.	2.6	8:45 a.m.	0.5	3:08 p.m.	2.8	9:18 p.m.	0.7		
Tuesday	June 6	3:10 a.m.	2.5	9:30 a.m.	0.5	3:56 p.m.	2.9	10:09 p.m.	0.6		
Wednesday	June 7	4:05 a.m.	2.5	10:13 a.m.	0.4	4:44 p.m.	3.1	10:58 p.m.	0.4		
Thursday	June 8	4:59 a.m.	2.5	10:56 a.m.	0.4	5:28 p.m.	3.2	11:46 p.m.	0.3		
Friday	June 9	5:49 a.m.	2.6	11:40 a.m.	0.3	6:11 p.m.	3.4				
Saturday	June 10			12:33 a.m.	0.1	6:35 a.m.	2.7	12:25 p.m.	0.3	6:52 p.m.	3.5
Sunrise: 5:19 am Sunset: 8:22 pm											
Sunday	**June 11**			**1:20 a.m.**	**0.0**	**7:19 a.m.**	**2.7**	**1:12 p.m.**	**0.2**	**7:33 p.m.**	**3.6**
Monday	June 12			2:06 a.m.	-0.1	8:03 a.m.	2.8	2:00 p.m.	0.2	8:16 p.m.	3.7
Tuesday	June 13			2:52 a.m.	-0.1	8:50 a.m.	2.8	2:47 p.m.	0.2	9:03 p.m.	3.6
Wednesday	June 14			3:37 a.m.	-0.1	9:42 a.m.	2.9	3:35 p.m.	0.2	9:54 p.m.	3.5
Thursday	June 15			4:22 a.m.	-0.1	10:38 a.m.	2.9	4:25 p.m.	0.2	10:50 p.m.	3.5
Friday	June 16			5:10 a.m.	-0.1	11:35 a.m.	3.0	5:21 p.m.	0.4	11:47 p.m.	3.3
Saturday	June 17			6:02 a.m.	-0.1	12:31 p.m.	3.0	6:26 p.m.	0.4		
Sunrise: 5:19 am Sunset: 8:25 pm											
Sunday	**June 18**	**12:43 a.m.**	**3.2**	**6:58 a.m.**	**0.0**	**1:26 p.m.**	**3.2**	**7:38 p.m.**	**0.4**		
Monday	June 19	1:40 a.m.	3.0	7:57 a.m.	0.1	2:21 p.m.	3.3	8:46 p.m.	0.4		
Tuesday	June 20	2:40 a.m.	2.9	8:55 a.m.	0.1	3:18 p.m.	3.3	9:49 p.m..	0.2		
Wednesday	June 21	3:42 a.m.	2.9	9:49 a.m.	0.1	4:16 p.m.	3.5	10:46 p.m.	0.1		
Thursday	June 22	4:44 a.m.	2.8	10:41 a.m.	0.1	5:12 p.m.	3.5	11:40 p.m.	0.1		
Friday	June 23	5:43 a.m.	2.8	11:32 a.m.	0.1	6:04 p.m.	3.6				
Saturday	June 24			12:32 a.m.	0.0	6:36 a.m.	2.9	12:22 p.m.	0.1	6:52 p.m.	3.6
Sunrise: 5:21 am Sunset: 8:26 pm											
Sunday	**June 25**			**1:22 a.m.**	**-0.1**	**7:25 a.m.**	**2.9**	**1:12 p.m.**	**0.2**	**7:37 p.m.**	**3.6**
Monday	June 26			2:09 a.m.	-0.1	8:12 a.m.	2.9	1:59 p.m.	0.2	8:21 p.m.	3.5
Tuesday	June 27			2:53 a.m.	0.0	8:59 a.m.	2.8	2:44 p.m.	0.3	9:05 p.m.	3.3
Wednesday	June 28			3:34 a.m.	0.1	9:47 a.m.	2.7	3:26 p.m.	0.4	9:48 p.m.	3.2
Thursday	June 29			4:12 a.m.	0.1	10:35 a.m.	2.7	4:07 p.m.	0.5	10:32 p.m.	3.1
Friday	June 30			4:50 a.m.	0.2	11:22 a.m.	2.7	4:48 p.m.	0.6	11:16 p.m.	2.9



2006 Ferry Service

Fire Island Ferries
631-665-3600 or 666-3600
www.fireislandferries.com
Bayshore to:
Kismet *
Saltaire
Fair Harbor
Dunewood *
Atlantique *
Ocean Beach
Seaview *
Ocean Bay Park*
**seasonal only*
Cross-bay and lateral water taxi

Fire Island Water Taxi
631-665-8885
www.fireislandwatertaxi.com
seasonal only

Sayville Ferry Service
631-589-0810
www.sayvilleferry.com
Sayville to
Sailors Haven *
Cherry Grove
Fire Island Pines
Water Island *
**seasonal only*
Cross-bay water taxi
by special arrangement

Davis Park Ferry Service
631-475-1665
www.davisparkferry.com
Patchogue (Sandspit Park) to
Davis Park *
Patchogue (West Avenue) to
Watch Hill *
**seasonal only*
Cross-bay water taxi
by special arrangement

National Park Service
Fire Island National Seashore
631-289-4810
www.nps.gov/fiis
fiis_information@nps.gov
fiis_superintendent@nps.gov
Chief Ranger: 631-687-4758

In An Emergency:
Call 911

July 2006

Date		High		Low		High		Low		High	
		time	feet	time	feet	time	feet	time	feet	time	feet
Saturday	Jul. 1			5:28 a.m.	0.4	12:06 p.m.	2.7	5:33 p.m.	0.7	11:59 p.m.	2.8
Sunrise: 5:24 am Sunset: 8:26 pm											
Sunday	**Jul. 2**			**6:07 a.m.**	**0.4**	**12:50 p.m.**	**2.7**	**6:27 p.m.**	**0.8**		
Monday	Jul. 3	12:42 a.m.	2.6	6:51 a.m.	0.5	1:32 p.m.	2.7	7:30 p.m.	0.8		
Tuesday	Jul. 4	1:27 a.m.	2.5	7:41 a.m.	0.5	2:16 p.m.	2.9	8:33 p.m.	0.8		
Wednesday	Jul. 5	2:17 a.m.	2.4	8:34 a.m.	0.5	3:03 p.m.	2.9	9:31 p.m.	0.7		
Thursday	Jul. 6	3:14 a.m.	2.4	9:25 a.m.	0.5	3:54 p.m.	3.0	10:24 p.m.	0.5		
Friday	Jul. 7	4:15 a.m.	2.4	10:16 a.m.	0.5	4:47 p.m.	3.2	11:15 p.m.	0.4		
Saturday	Jul. 8	5:14 a.m.	2.5	11:06 a.m.	0.4	5:38 p.m.	3.3				
Sunrise: 5:28 am Sunset: 8:24 pm											
Sunday	**Jul. 9**			**12:06 a.m.**	**0.2**	**6:08 a.m.**	**2.6**	**11:58 a.m.**	**0.2**	**6:27 p.m.**	**3.5**
Monday	Jul. 10			12:56 a.m.	0.0	6:57 a.m.	2.8	12:51 p.m.	0.2	7:14 p.m.	3.7
Tuesday	Jul. 11			1:45 a.m.	-0.2	7:45 a.m.	2.9	1:43 p.m.	0.1	8:01 p.m.	3.8
Wednesday	Jul. 12			2:32 a.m.	-0.3	8:34 a.m.	3.0	2:34 p.m.	0.0	8:50 p.m.	3.7
Thursday	Jul. 13			3:18 a.m.	-0.4	9:26 a.m.	3.1	3:25 p.m.	0.0	9:41 p.m.	3.7
Friday	Jul. 14			4:03 a.m.	-0.4	10:20 a.m.	3.2	4:16 p.m.	0.1	10:35 p.m.	3.5
Saturday	Jul. 15			4:48 a.m.	-0.3	11:15 a.m.	3.2	5:10 p.m.	0.1	11:30 p.m.	3.3
Sunrise: 5:33 am Sunset: 8:20 pm											
Sunday	**Jul. 16**			**5:36 a.m.**	**-0.2**	**12:10 p.m.**	**3.3**	**6:11 p.m.**	**0.2**		
Monday	Jul. 17	12:26 a.m.	3.2	6:29 a.m.	-0.1	1:04 p.m.	3.3	7:19 p.m.	0.4		
Tuesday	Jul. 18	1:22 a.m.	2.9	7:27 a.m.	0.1	1:58 p.m.	3.3	8:28 p.m.	0.4		
Wednesday	Jul. 19	2:20 a.m.	2.8	8:28 a.m.	0.2	2:55 p.m.	3.3	9:32 p.m.	0.3		
Thursday	Jul. 20	3:22 a.m.	2.7	9:26 a.m.	0.2	3:54 p.m.	3.3	10:31 p.m.	0.2		
Friday	Jul. 21	4:26 a.m.	2.6	10:21 a.m.	0.2	4:53 p.m.	3.3	11:24 p.m.	0.2		
Saturday	Jul. 22	5:27 a.m.	2.7	11:14 a.m.	0.2	5:48 p.m.	3.4				
Sunrise: 5:39 am Sunset: 8:15 pm											
Sunday	**Jul. 23**			**12:15 a.m.**	**0.1**	**6:20 a.m.**	**2.7**	**12:05 p.m.**	**0.2**	**6:36 p.m.**	**3.4**
Monday	Jul. 24			1:03 a.m.	0.1	7:08 a.m.	2.8	12:53 p.m.	0.2	7:20 p.m.	3.4
Tuesday	Jul. 25			1:47 a.m.	0.1	7:52 a.m.	2.9	1:39 p.m.	0.2	8:01 p.m.	3.4
Wednesday	Jul. 26			2:28 a.m.	0.0	8:35 a.m.	2.9	2:22 p.m.	0.3	8:40 p.m.	3.3
Thursday	Jul. 27			3:05 a.m.	0.1	9:17 a.m.	2.9	3:02 p.m.	0.3	9:18 p.m.	3.2
Friday	Jul. 28			3:40 a.m.	0.1	9:59 a.m.	2.9	3:41 p.m.	0.4	9:56 p.m.	3.0
Saturday	Jul. 29			4:12 a.m.	0.2	10:41 a.m.	2.8	4:19 p.m.	0.5	10:35 p.m.	2.9
Sunrise: 5:46 am Sunset: 8:09 pm											
Sunday	**Jul. 30**			**4:43 a.m.**	**0.3**	**11:21 a.m.**	**2.8**	**4:58 p.m.**	**0.6**	**11:14 p.m.**	**2.7**
Monday	Jul. 31			5:14 a.m.	0.4	12:01 p.m.	2.8	5:42 p.m.	0.7	11:55 p.m.	2.6

August 2006

Date		High		Low		High		Low		High	
		time	feet	time	feet	time	feet	time	feet	time	feet
Tuesday	Aug. 1			5:47 a.m.	0.5	12:40 p.m.	2.9	6:37 p.m.	0.8		
Wednesday	Aug. 2	12:39 a.m.	2.5	6:30 a.m.	0.6	1:23 p.m.	2.9	7:45 p.m.	0.8		
Thursday	Aug. 3	1:30 a.m.	2.4	7:31 a.m.	0.7	2:11 p.m.	2.9	8:52 p.m.	0.7		
Friday	Aug. 4	2:29 a.m.	2.4	8:40 a.m.	0.6	3:08 p.m.	3.0	9:52 p.m.	0.5		
Saturday	Aug. 5	3:36 a.m.	2.4	9:43 a.m.	0.5	4:11 p.m.	3.2	10:47 p.m.	0.4		
Sunrise: 5:52 am Sunset: 8:01 pm											
Sunday	**Aug. 6**	**4:44 a.m.**	**2.5**	**10:41 a.m.**	**0.4**	**5:11 p.m.**	**3.3**	**11:40 p.m.**	**0.2**		
Monday	Aug. 7	5:43 a.m.	2.7	11:37 a.m.	0.2	6:05 p.m.	3.6				
Tuesday	Aug. 8			12:31 a.m.	-0.1	6:36 a.m.	2.9	12:33 p.m.	0.1	6:55 p.m.	3.8
Wednesday	Aug. 9			1:20 a.m.	-0.2	7:26 a.m.	3.2	1:27 p.m.	-0.1	7:44 p.m.	3.8
Thursday	Aug. 10			2:08 a.m.	-0.4	8:14 a.m.	3.3	2:19 p.m.	-0.2	8:32 p.m.	3.8
Friday	Aug. 11			2:53 a.m.	-0.5	9:04 a.m.	3.5	3:10 p.m.	-0.2	9:22 p.m.	3.7
Saturday	Aug. 12			3:37 a.m.	-0.5	9:56 a.m.	3.5	4:01 p.m.	-0.2	10:15 p.m.	3.5
Sunrise: 5:59 am Sunset: 7:52 pm											
Sunday	**Aug. 13**			**4:22 a.m.**	**-0.4**	**10:50 a.m.**	**3.5**	**4:54 p.m.**	**0.0**	**11:10 p.m.**	**3.3**
Monday	Aug. 14			5:08 a.m.	-0.2	11:44 a.m.	3.5	5:52 p.m.	0.2		
Tuesday	Aug. 15	12:07 a.m.	3.0	5:59 a.m.	0.1	12:39 p.m.	3.4	6:58 p.m.	0.4		
Wednesday	Aug. 16	1:04 a.m.	2.9	6:58 a.m.	0.2	1:34 p.m.	3.3	8:09 p.m.	0.4		
Thursday	Aug. 17	2:03 a.m.	2.7	8:03 a.m.	0.4	2:32 p.m.	3.2	9:15 p.m.	0.4		
Friday	Aug. 18	3:06 a.m.	2.5	9:07 a.m.	0.5	3:34 p.m.	3.2	10:14 p.m.	0.4		
Saturday	Aug. 19	4:10 a.m.	2.5	10:05 a.m.	0.5	4:35 p.m.	3.2	11:07 p.m.	0.3		
Sunrise: 6:06 am Sunset: 7:42 pm											
Sunday	**Aug. 20**	**5:11 a.m.**	**2.6**	**10:58 a.m.**	**0.4**	**5:31 p.m.**	**3.2**	**11:54 p.m.**	**0.2**		
Monday	Aug. 21	6:03 a.m.	2.7	11:47 a.m.	0.4	6:18 p.m.	3.3				
Tuesday	Aug. 22			12:38 a.m.	0.2	6:48 a.m.	2.9	12:33 p.m.	0.3	6:59 p.m.	3.3
Wednesday	Aug. 23			1:19 a.m.	0.1	7:29 a.m.	3.0	1:17 p.m.	0.2	7:37 p.m.	3.3
Thursday	Aug. 24			1:57 a.m.	0.1	8:07 a.m.	3.0	1:58 p.m.	0.2	8:12 p.m.	3.3
Friday	Aug. 25			2:31 a.m.	0.1	8:44 a.m.	3.0	2:37 p.m.	0.2	8:47 p.m.	3.2
Saturday	Aug. 26			3:04 a.m.	0.1	9:20 a.m.	3.0	3:15 p.m.	0.3	9:21 p.m.	3.0
Sunrise: 6:13 am Sunset: 7:32 pm											
Sunday	**Aug. 27**			**3:34 a.m.**	**0.2**	**9:56 a.m.**	**3.0**	**3:51 p.m.**	**0.4**	**9:55 p.m.**	**2.9**
Monday	Aug. 28			4:02 a.m.	0.3	10:31 a.m.	3.0	4:27 p.m.	0.5	10:31 p.m.	2.7
Tuesday	Aug. 29			4:28 a.m.	0.4	11:07 a.m.	2.9	5:06 p.m.	0.6	11:11 p.m.	2.5
Wednesday	Aug. 30			4:57 a.m.	0.5	11:47 a.m.	2.9	5:53 p.m.	0.7	11:59 p.m.	2.4
Thursday	Aug. 31			5:35 a.m.	0.7	12:35 p.m.	2.9	6:59 p.m.	0.8		

September 2006

Date		High		Low		High		Low		High	
		time	feet	time	feet	time	feet	time	feet	time	feet
Friday	Sept. 1	12:55 a.m.	2.4	6:35 a.m.	0.7	1:30 p.m.	3.0	8:16 p.m.	0.7		
Saturday	Sept. 2	1:58 a.m.	2.4	8:03 a.m.	0.7	2:33 p.m.	3.0	9:23 p.m.	0.6		
Sunrise: 6:20 am Sunset: 7:20 pm											
Sunday	**Sept. 3**	**3:09 a.m.**	**2.4**	**9:19 a.m.**	**0.6**	**3:41 p.m.**	**3.2**	**10:21 p.m.**	**0.4**		
Monday	Sept. 4	4:19 a.m.	2.6	10:22 a.m.	0.4	4:46 p.m.	3.4	11:13 p.m.	0.1		
Tuesday	Sept. 5	5:20 a.m.	2.9	11:20 a.m.	0.1	5:43 p.m.	3.6				
Wednesday	Sept. 6			12:03 a.m.	-0.1	6:14 a.m.	3.2	12:15 p.m.	-0.1	6:35 p.m.	3.8
Thursday	Sept. 7 ○			12:52 a.m.	-0.4	7:03 a.m.	3.5	1:10 p.m.	-0.2	7:23 p.m.	3.8
Friday	Sept. 8			1:39 a.m.	-0.5	7:51 a.m.	3.7	2:02 p.m.	-0.4	8:12 p.m.	3.8
Saturday	Sept. 9			2:25 a.m.	-0.5	8:39 a.m.	3.8	2:53 p.m.	-0.4	9:01 p.m.	3.7
Sunrise: 6:27 am Sunset: 7:09 pm											
Sunday	**Sept. 10**			**3:09 a.m.**	**-0.5**	**9:29 a.m.**	**3.8**	**3:44 p.m.**	**-0.2**	**9:54 p.m.**	**3.5**
Monday	Sept. 11			3:54 a.m.	-0.3	10:21 a.m.	3.7	4:36 p.m.	-0.1	10:49 p.m.	3.2
Tuesday	Sept. 12			4:40 a.m.	-0.1	11:16 a.m.	3.6	5:31 p.m.	0.1	11:47 p.m.	2.9
Wednesday	Sept. 13			5:31 a.m.	0.2	12:13 p.m.	3.4	6:35 p.m.	0.4		
Thursday	Sept. 14 ◗	12:46 a.m.	2.7	6:31 a.m.	0.4	1:10 p.m.	3.2	7:46 p.m.	0.5		
Friday	Sept. 15	1:46 a.m.	2.6	7:40 a.m.	0.6	2:10 p.m.	3.1	8:55 p.m.	0.5		
Saturday	Sept. 16	2:48 p.m.	2.5	8:49 a.m.	0.7	3:11 p.m.	3.0	9:53 p.m..	0.5		
Sunrise: 6:34 am Sunset: 6:57 pm											
Sunday	**Sept. 17**	**3:51 a.m.**	**2.5**	**9:48 a.m.**	**0.6**	**4:12 p.m.**	**3.0**	**10:43 p.m.**	**0.4**		
Monday	Sept. 18	4:50 a.m.	2.7	10:40 a.m.	0.5	5:06 p.m.	3.1	11:26 p.m.	0.3		
Tuesday	Sept. 19	5:40 a.m.	2.9	11:26 a.m.	0.4	5:52 p.m.	3.2				
Wednesday	Sept. 20			12:06 a.m.	0.2	6:22 a.m.	3.0	12:10 p.m.	0.3	6:32 p.m.	3.2
Thursday	Sept. 21			12:44 a.m.	0.1	7:01 a.m.	3.1	12:53 p.m.	0.2	7:09 p.m.	3.2
Friday	Sept. 22 ●			1:20 a.m.	0.1	7:36 a.m.	3.2	1:33 p.m.	0.2	7:44 p.m.	3.2
Saturday	Sept. 23			1:54 a.m.	0.1	8:10 a.m.	3.2	2:13 p.m.	0.2	8:17 p.m.	3.1
Sunrise: 6:41 am Sunset: 6:45 pm											
Sunday	**Sept. 24**			**2:26 a.m.**	**0.2**	**8:42 a.m.**	**3.2**	**2:50 p.m.**	**0.2**	**8:49 p.m.**	**3.0**
Monday	Sept. 25			2:57 a.m.	0.2	9:13 a.m.	3.2	3:26 p.m.	0.3	9:22 p.m.	2.8
Tuesday	Sept. 26			3:25 a.m.	0.4	9:44 a.m.	3.1	4:02 p.m.	0.4	9:57 p.m.	2.7
Wednesday	Sept. 27			3:53 a.m.	0.5	10:19 a.m.	3.0	4:39 p.m.	0.5	10:39 p.m.	2.5
Thursday	Sept. 28			4:23 a.m.	0.5	11:04 a.m.	3.0	5:25 p.m.	0.6	11:32 p.m.	2.4
Friday	Sept. 29			5:03 a.m.	0.7	11:59 a.m.	3.0	6:28 p.m.	0.7		
Saturday	Sept. 30 ◖	12:34 a.m.	2.4	6:05 a.m.	0.8	1:01 p.m.	3.0	7:46 p.m.	0.7		

October 2006

		High		Low		High		Low		High	
Sunrise: 6:48 am Sunset: 6:33 pm											
Sunday	**Oct. 1**	**1:41 a.m.**	**2.4**	**7:41 a.m.**	**0.8**	**2:08 p.m.**	**3.0**	**8:56 p.m.**	**0.5**		
Monday	Oct. 2	2:49 a.m.	2.5	9:02 a.m.	0.6	3:16 p.m.	3.2	9:54 p.m.	0.2		
Tuesday	Oct. 3	3:57 a.m.	2.8	10:06 a.m.	0.4	4:21 p.m.	3.3	10:45 p.m.	0.0		
Wednesday	Oct. 4	4:57 a.m.	3.1	11:04 a.m.	0.1	5:19 p.m.	3.5	11:34 p.m.	-0.2		
Thursday	Oct. 5	5:51 a.m.	3.5	11:58 a.m.	-0.2	6:13 p.m.	3.7				
Friday	Oct. 6			12:22 a.m.	-0.4	6:40 a.m.	3.7	12:52 p.m.	-0.3	7:02 p.m.	3.7
Saturday	Oct. 7 ○			1:09 a.m.	-0.5	7:27 a.m.	3.9	1:45 p.m.	-0.4	7:51 p.m.	3.7
Sunrise: 6:55 am Sunset: 6:22pm											
Sunday	**Oct. 8**			**1:56 a.m.**	**-0.5**	**8:14 a.m.**	**4.0**	**2:36 p.m.**	**-0.4**	**8:40 p.m.**	**3.5**
Monday	Oct. 9			2:42 a.m.	-0.4	9:02 a.m.	3.9	3:26 p.m.	-0.3	9:33 p.m.	3.3
Tuesday	Oct. 10			3:28 a.m.	-0.2	9:53 a.m.	3.7	4:17 p.m.	-0.1	10:29 p.m.	3.0
Wednesday	Oct. 11			4:15 a.m.	0.1	10:48 a.m.	3.5	5:10 p.m.	0.1	11:28 p.m.	2.8
Thursday	Oct. 12			5:05 a.m.	0.3	11:46 a.m.	3.3	6:10 p.m.	0.4		
Friday	Oct. 13	12:28 a.m.	2.7	6:04 a.m.	0.5	12:45 p.m.	3.1	7:18 p.m.	0.5		
Saturday	Oct. 14 ◗	1:27 a.m.	2.5	7:13 a.m.	0.7	1:43 p.m.	2.9	8:25 p.m.	0.5		
Sunrise: 7:02 am Sunset: 6:11 pm											
Sunday	**Oct. 15**	**2:26 a.m.**	**2.5**	**8:24 a.m.**	**0.8**	**2:42 p.m.**	**2.9**	**9:22 p.m.**	**0.5**		
Monday	Oct. 16	3:25 a.m.	2.6	9:24 a.m.	0.7	3:39 p.m.	2.9	10:09 p.m.	0.4		
Tuesday	Oct. 17	4:20 a.m.	2.7	10:15 a.m.	0.6	4:32 p.m.	2.9	10:50 p.m.	0.3		
Wednesday	Oct. 18	5:09 a.m.	2.9	11:01 a.m.	0.4	5:19 p.m.	2.9	11:28 p.m.	0.2		
Thursday	Oct. 19	5:51 a.m.	3.0	11:44 a.m.	0.3	6:01 p.m.	3.0				
Friday	Oct. 20			12:05 a.m.	0.2	6:29 a.m.	3.2	12:26 p.m.	0.2	6:39 p.m.	3.0
Saturday	Oct. 21			12:41 a.m.	0.1	7:04 a.m.	3.3	1:08 p.m.	0.2	7:15 p.m.	3.0
Sunrise: 7:10 am Sunset: 6:01 pm											
Sunday	**Oct. 22** ●			**1:16 a.m.**	**0.1**	**7:37 a.m.**	**3.3**	**1:48 p.m.**	**0.1**	**7:49 p.m.**	**2.9**
Monday	Oct. 23			1:51 a.m.	0.2	8:08 a.m.	3.3	2:27 p.m.	0.1	8:23 p.m.	2.8
Tuesday	Oct. 24			2:25 a.m.	0.2	8:39 a.m.	3.3	3:05 p.m.	0.2	8:57 p.m.	2.7
Wednesday	Oct. 25			2:57 a.m.	0.4	9:11 a.m.	3.2	3:43 p.m.	0.2	9:35 p.m.	2.5
Thursday	Oct. 26			3:30 a.m.	0.4	9:50 a.m.	3.2	4:24 p.m.	0.4	10:22 p.m.	2.5
Friday	Oct. 27			4:07 a.m.	0.5	10:39 a.m.	3.1	5:10 p.m.	0.4	11:20 p.m.	2.4
Saturday	Oct. 28			4:52 a.m.	0.6	11:39 a.m.	3.0	6:09 p.m.	0.5	11:24 p.m.	2.4
Sunrise: 6:18 am Sunset: 4:51 pm		*** Daylight Savings Time ends**									
Sunday *	**Oct. 29** ◖			**4:58 a.m.**	**0.7**	**11:43 a.m.**	**3.0**	**6:19 p.m.**	**0.5**		
Monday	Oct. 30	12:28 a.m.	2.5	6:27 a.m.	0.7	12:47 p.m.	3.0	7:26 p.m.	0.3		
Tuesday	Oct. 31	1:31 a.m.	2.7	7:46 a.m.	0.5	1:52 p.m.	3.1	8:24 p.m.	0.1		

November 2006

Date		High time	High feet	Low time	Low feet	High time	High feet	Low time	Low feet	High time	High feet
Wednesday	Nov. 1	2:34 a.m.	3.0	8:50 a.m.	0.2	2:55 p.m.	3.2	9:16 p.m.	-0.1		
Thursday	Nov. 2	3:33 a.m.	3.3	9:47 a.m.	0.0	3:55 p.m.	3.3	10:05 p.m.	-0.3		
Friday	Nov. 3	4:27 a.m.	3.6	10:42 a.m.	-0.2	4:51 p.m.	3.3	10:53 p.m.	-0.4		
Saturday	Nov. 4	5:17 a.m.	3.8	11:36 a.m.	-0.4	5:42 p.m.	3.3	11:41 p.m.	-0.4		
Sunrise: 6:26 am Sunset: 4:43 pm											
Sunday	**Nov. 5**	**6:05 a.m.**	**4.0**	**12:28 p.m.**	**-0.4**	**6:32 p.m.**	**3.3**				
Monday	Nov. 6			12:30 a.m.	-0.4	6:51 a.m.	4.0	1:19 p.m.	-0.4	7:22 p.m.	3.2
Tuesday	Nov. 7			1:18 a.m.	-0.3	7:39 a.m.	3.8	2:08 p.m.	-0.4	8:13 p.m.	3.0
Wednesday	Nov. 8			2:05 a.m.	-0.1	8:29 a.m.	3.6	2:57 p.m.	-0.2	9:08 p.m.	2.9
Thursday	Nov. 9			2:52 a.m.	0.1	9:22 a.m.	3.3	3:47 p.m.	0.1	10:06 p.m.	2.7
Friday	Nov. 10			3:41 a.m.	0.3	10:19 a.m.	3.2	4:41 p.m.	0.2	11:04 p.m.	2.5
Saturday	Nov. 11			4:34 a.m.	0.5	11:15 a.m.	2.9	5:40 p.m.	0.4		
Sunrise: 6:34 am Sunset: 4:36 pm											
Sunday	**Nov. 12**	**12:00 a.m.**	**2.5**	**5:37 a.m.**	**0.7**	**12:09 p.m.**	**2.8**	**6:42 p.m.**	**0.5**		
Monday	Nov. 13	12:55 a.m.	2.5	6:46 a.m.	0.8	1:02 p.m.	2.7	7:38 p.m.	0.4		
Tuesday	Nov. 14	1:48 a.m.	2.5	7:49 a.m.	0.7	1:55 p.m.	2.6	8:26 p.m.	0.4		
Wednesday	Nov. 15	2:40 a.m.	2.7	8:42 a.m.	0.6	2:48 p.m.	2.6	9:07 p.m.	0.3		
Thursday	Nov. 16	3:29 a.m.	2.8	9:30 a.m.	0.4	3:39 p.m.	2.6	9:46 p.m.	0.2		
Friday	Nov. 17	4:14 a.m.	3.0	10:15 a.m.	0.3	4:25 p.m.	2.7	10:24 p.m.	0.2		
Saturday	Nov. 18	4:54 a.m.	3.2	10:59 a.m.	0.2	5:08 p.m.	2.7	11:02 p.m.	0.1		
Sunrise: 6:43 am Sunset: 4:30 pm											
Sunday	**Nov. 19**	**5:31 a.m.**	**3.2**	**11:42 a.m.**	**0.1**	**5:48 p.m.**	**2.7**	**11:41 p.m.**	**0.1**		
Monday	Nov. 20	6:06 a.m.	3.3	12:25 p.m.	0.0	6:25 p.m.	2.7				
Tuesday	Nov. 21			12:21 a.m.	0.1	6:40 a.m.	3.3	1:07 p.m.	0.0	7:02 p.m.	2.7
Wednesday	Nov. 22			1:00 a.m.	0.2	7:15 a.m.	3.3	1:48 p.m.	0.0	7:41 p.m.	2.6
Thursday	Nov. 23			1:39 a.m.	0.2	7:53 a.m.	3.3	2:29 p.m.	0.0	8:23 p.m.	2.5
Friday	Nov. 24			2:19 a.m.	0.2	8:36 a.m.	3.2	3:12 p.m.	0.1	9:14 p.m.	2.5
Saturday	Nov. 25			3:01 a.m.	0.3	9:28 a.m.	3.1	3:58 p.m.	0.1	10:12 p.m.	2.5
Sunrise: 6:51 am Sunset: 4:26 pm											
Sunday	**Nov. 26**			**3:51 a.m.**	**0.4**	**10:27 a.m.**	**3.0**	**4:50 p.m.**	**0.2**	**11:12 p.m.**	**2.5**
Monday	Nov. 27			4:55 a.m.	0.5	11:27 a.m.	3.0	5:51 p.m.	0.1		
Tuesday	Nov. 28	12:11 a.m.	2.7	6:13 a.m.	0.5	12:27 p.m.	2.9	6:54 p.m.	0.1		
Wednesday	Nov. 29	1:10 a.m.	2.9	7:28 a.m.	0.4	1:28 p.m.	2.9	7:53 p.m.	-0.1		
Thursday	Nov. 30	2:09 a.m.	3.0	8:33 a.m.	0.2	2:31 p.m.	2.9	8:46 p.m.	-0.2		

December 2006

Date		High time	High feet	Low time	Low feet	High time	High feet	Low time	Low feet	High time	High feet
Friday	Dec. 1	3:08 a.m.	3.3	9:32 a.m.	-0.1	3:33 p.m.	2.9	9:37 p.m.	-0.3		
Saturday	Dec. 2	4:04 a.m.	3.5	10:27 a.m.	-0.2	4:31 p.m.	3.0	10:28 p.m.	-0.4		
Sunrise: 6:58 am Sunset: 4:24 pm											
Sunday	**Dec. 3**	**4:57 a.m.**	**3.7**	**11:21 a.m.**	**-0.4**	**5:25 p.m.**	**3.0**	**11:18 p.m.**	**-0.4**		
Monday	Dec. 4	5:46 a.m.	3.7	12:13 p.m.	-0.4	6:16 p.m.	3.0				
Tuesday	Dec. 5			12:08 a.m.	-0.3	6:33 a.m.	3.7	1:03 p.m.	-0.4	7:05 p.m.	2.9
Wednesday	Dec. 6			12:58 a.m.	-0.2	7:20 a.m.	3.6	1:51 p.m.	-0.4	7:55 p.m.	2.8
Thursday	Dec. 7			1:45 a.m.	-0.1	8:08 a.m.	3.4	2:38 p.m.	-0.2	8:47 p.m.	2.7
Friday	Dec. 8			2:31 a.m.	0.1	8:57 a.m.	3.2	3:23 p.m.	-0.1	9:41 p.m.	2.6
Saturday	Dec. 9			3:16 a.m.	0.2	9:48 a.m.	3.0	4:08 p.m.	0.1	10:34 p.m.	2.5
Sunrise: 7:04 am Sunset: 4:23 pm											
Sunday	**Dec. 10**			**4:03 a.m.**	**0.4**	**10:39 a.m.**	**2.9**	**4:56 p.m.**	**0.2**	**11:26 p.m.**	**2.5**
Monday	Dec. 11			4:56 a.m.	0.5	11:28 a.m.	2.7	5:47 p.m.	0.3		
Tuesday	Dec. 12	12:15 a.m.	2.4	5:57 a.m.	0.7	12:16 p.m.	2.5	6:40 p.m.	0.4		
Wednesday	Dec. 13	1:04 a.m.	2.5	7:02 a.m.	0.7	1:05 p.m.	2.4	7:31 p.m.	0.4		
Thursday	Dec. 14	1:52 a.m.	2.5	8:02 a.m.	0.6	1:57 p.m.	2.4	8:17 p.m.	0.4		
Friday	Dec. 15	2:42 a.m.	2.7	8:55 a.m.	0.5	2:52 p.m.	2.3	9:01 p.m.	0.3		
Saturday	Dec. 16	3:30 a.m.	2.8	9:43 a.m.	0.3	3:46 p.m.	2.3	9:44 p.m.	0.2		
Sunrise: 7:09 am Sunset: 4:25 pm											
Sunday	**Dec. 17**	**4:16 a.m.**	**3.0**	**10:30 a.m.**	**0.2**	**4:36 p.m.**	**2.4**	**10:27 p.m.**	**0.2**		
Monday	Dec. 18	4:59 a.m.	3.1	11:16 a.m.	0.1	5:21 p.m.	2.4	11:11 p.m.	0.1		
Tuesday	Dec. 19	5:39 a.m.	3.2	12:02 p.m.	-0.1	6:04 p.m.	2.5	11:56 p.m.	0.1		
Wednesday	Dec. 20	6:19 a.m.	3.3	12:47 p.m.	-0.2	6:45 p.m.	2.5				
Thursday	Dec. 21			12:41 a.m.	0.0	6:59 a.m.	3.3	1:31 p.m.	-0.2	7:27 p.m.	2.6
Friday	Dec. 22			1:26 a.m.	0.0	7:41 a.m.	3.3	2:14 p.m.	-0.2	8:13 p.m.	2.6
Saturday	Dec. 23			2:10 a.m.	0.0	8:27 a.m.	3.3	2:56 p.m.	-0.2	9:03 p.m.	2.6
Sunrise: 7:13 am Sunset: 4:28 pm											
Sunday	**Dec. 24**			**2:57 a.m.**	**0.0**	**9:18 a.m.**	**3.2**	**3:40 p.m.**	**-0.2**	**9:58 p.m.**	**2.7**
Monday	Dec. 25			3:47 a.m.	0.1	10:13 a.m.	3.1	4:28 p.m.	-0.2	10:54 p.m.	2.7
Tuesday	Dec. 26			4:46 a.m.	0.2	11:09 a.m.	3.0	5:21 p.m.	-0.1	11:50 p.m.	2.9
Wednesday	Dec. 27			5:56 a.m.	0.2	12:07 p.m.	2.8	6:20 p.m.	-0.1		
Thursday	Dec. 28	12:46 a.m.	3.0	7:09 a.m.	0.2	1:06 p.m.	2.7	7:21 p.m.	-0.1		
Friday	Dec. 29	1:44 a.m.	3.0	8:16 a.m.	0.1	2:09 p.m.	2.6	8:19 p.m.	-0.1		
Saturday	Dec. 30	2:44 a.m.	3.2	9:17 a.m.	-0.1	3:13 p.m.	2.6	9:15 p.m.	-0.2		
Sunrise: 7:15 am Sunset: 4:33 pm											
Sunday	**Dec. 31**	**3:44 a.m.**	**3.3**	**10:13 a.m.**	**-0.2**	**4:15 p.m.**	**2.6**	**10:08 p.m.**	**-0.2**		

An Integrated Pest Management Plan for Fire Island National Seashore will be completed in 2006.

Contending with Vermin, Pests and Alien Invaders in a National Park

National parks provide habitat for many unique and valuable native plants and animals, including a number of endangered species. Outside park boundaries, critical habitat may be threatened by destruction due to urban, suburban and industrial developments. Within park boundaries, native species should be expected to thrive. Yet alien plants and animals have silently invaded Fire Island's habitats. Invasive plants and animals pose a severe long-term threat to biodiversity and ecosystem stability as they crowd out native species. Some exotic species also pose health risk and adversely affect outdoor recreation and fisheries.

The National Park Service is charged with protecting its natural resources and the people who use those resources. Managing nonnative invasive species and other pests helps protect people and natural resources.

Integrated pest management (IPM) is a comprehensive approach to managing pests that seeks to minimize the use of harmful pesticides and other ecologically unsound practices. Pests are first controlled by exploiting known facts about their behavior to find and remove sources of food and shelter. Pesticides are used only if no other method will work or if a quick remedy is necessary, such as in a human health emergency.

Fire Island National Seashore has begun surveying and mapping invasive plant species, and has started measures to manage the Norway rat in park buildings. The park's comprehensive IPM Plan is expected to be completed by the end of 2006. Park visitors and residents can also be proactive in helping reduce invasive and exotic species on Fire Island.

Help Keep Wildlife and Habitats Healthy and Safe

- Never feed deer or other wildlife. Food left for deer attracts rock pigeons, raccoons, and rats.
- Be sure your garbage and recyclables are securely contained. Deer can easily overturn garbage containers and spread litter, which attracts rats and other rodents.
- Support the park's "Carry In/Carry Out" policy. Never bring more than you need, and be prepared to take trash off the island with you.
- Plant native vegetation around homes and businesses. Never bring invasive plants onto the island.
- Use architectural barriers to keep deer out from underneath homes.
- Keep pets leashed, pet food inside. Never let pets (including cats) roam.
- Control rodents without the use of poisons.

Deer can be dangerous, especially during rut.

The long-standing tradition of feeding deer by many residents and visitors on Fire Island is not in the animals' best interest. Deer behavior and population dynamics, and possibly susceptibility to chronic wasting disease (CWD), are adversely affected by their being fed by humans.

As a primary host for adult ticks, deer play an indirect role in the transmission of Lyme disease to people.

Coexisting with Deer on Fire Island

A first-time visitor to Fire Island is probably thrilled to see the seemingly tame white-tailed deer on the island. However, these deer are potentially dangerous wild animals, posing both health and safety risks for humans. The number of deer on some parts of Fire Island is believed to be at an unhealthy density, which also puts pressure on other animal and plant populations.

Forty years of vegetation studies in Fire Island's Sunken Forest reveal an alarming reduction in the number of herbaceous plants and small trees in the understory of this rare old-growth maritime forest. Some scientists are concerned that the century-old American holly, sassafras, black cherry, black gum, and other trees may not be able to regenerate. The lack of establishment of new seedlings coincides with the implementation of wildlife protection policies on Fire Island in the 1970s.

In 1974, Fire Island's deer herd was estimated at 50 individuals; by 1989, it was close to 500, and in 2003 it was estimated to be 500-700. From population density studies conducted over the past six years, it is estimated that 300-500 deer now live on Fire Island. Average density varies widely between locations.

For the past 12 years, the National Park Service has conducted a research project cooperatively with university scientists, the Humane Society of the U.S., (HSUS) and several communities to determine whether an immunocontraceptive vaccine can be useful at Fire Island. In September, bait stations are set up to lure deer into appropriate areas. Female deer are then darted with PZP (*porcine zona pellucida*), which prevents does from becoming pregnant. In February 2006, in order to study the efficacy of administering PZP at alternative times, Fire Island National Seashore and HSUS initiated a winter deer-darting season throughout the mid-island communities of Corneille Estates to Sailors Haven. The National Park Service continues to gather data necessary for the possible development of a deer management plan.

Bait stations lure deer into areas determined to be safe and appropriate for darting. Marker darts are designed to strike the doe in the hip, inject the vaccine, spray a mark on the fur, and pop out after impact.

A qualified National Park Service volunteer or park ranger vaccinates a doe with PZP, delivered via a marker dart from a CO^2 pistol or air rifle. Darts are retrieved after they pop out of the deer's rump.

2006 marks the 20th anniversary of the listing of the piping plover as a federally threatened species.

Fire Island National Seashore has been monitoring the status of the following species that depend on coastal habitats since 1986.

Threatened and Endangered Species Protection Measures on Fire Island

The National Park Service's requirements to protect endangered and threatened species and their habitats has seasonal impacts on driving, beach users and the communities within park boundaries. You may anticipate the following actions each year.

Spring

NPS staff and volunteers begin preparing in March for returning piping plovers and least terns. Driving restrictions are implemented.

- Beginning in early March, approximately seven miles of beach from Smith Point west to Watch Hill are closed to all but emergency response and patrol vehicles.
- By early April, suitable plover habitat is marked with symbolic fencing. Birds return from the south and breed from March through late July. As nests are established, exclosures are constructed to protect both nest and eggs.

Summer

During the summer, further measures are enacted to protect endangered and threatened species. Portions of Fire Island's beaches are closed to pets. Kites are also prohibited in these areas, since nesting shorebirds may mistake a kite for a hovering bird of prey and abandon their nests.

- After Memorial Day weekend, essential service providers and patrol vehicles are normally the only vehicles permitted to drive on Fire Island beaches, where not otherwise prohibited.
- When a nest of plover chicks hatches, normally 27 days after the eggs are laid, a specific section of beach and the dune crossings on each side of the nest will be closed to driving until the plover chicks have fledged. Traffic will be diverted down the Burma Trail and through the communities while chicks are active, normally 25 days.

Fall/Winter

By late August, almost all chicks have fledged. Most restrictions on beach driving, pets and kites are lifted by early September.

Symbolic fencing is left intact through the fall to protect threatened and endangered plants. In these protected areas, beach grass is allowed to spread, repairing and building dunes.

Special Beach Dependent Flora and Fauna

Roseate Tern

(Sterna dougalli)
Federally endangered,
NY State threatened

2002 = No breeding pairs
2003 = 2 nesting pairs/1 chick
2004 = Not Recorded
2005 = 2 nesting pairs

When breeding, this tern has a silvery back, a white belly that may appear pinkish, long white tail streamers, and orange legs and base of its bill. Roseate terns nest within common tern colonies. These birds migrate to the coast of South America in September and return to the northeast Atlantic Coast in April.

Least Tern

(Sterna antillarum)
NY State threatened

2002 = 9 nesting pairs/5 chicks
2003 = 52 nesting pairs/1 chick
2004 = Not Recorded
2005 = 63 individuals

This smallest of all terns has a white underbelly and pale gray back and wings. In late May, the least tern breeds in colonies on open beaches, between dunes, or on small offshore islands. By late August, the chicks fledge, and both adults and young migrate to winter homes along the South American coast, the Amazon River or the Caribbean.

Piping Plover

(Charadrius melodus)
Federally threatened,
NY State endangered

2002 =11 nesting pairs/ 33 chicks
2003 = 20 nesting pairs/35 chicks
2004 =17 nesting pairs/ 37 chicks
2005 =17 nesting pairs/ 40 chicks

The piping plover is a small, stocky migratory shorebird that blends in with its sandy beach surroundings. From late March to late July, piping plovers breed on Atlantic Coast beaches from Canada to Virginia. They return to the south Atlantic Coast, the Gulf Coast, the Bahamas and the West Indies for the winter.

Seabeach Amaranth

(Amaranthus pumilus)
Federally threatened

2002 = 37 plants
2003 = 805 plants
2004 = 251 plants
2005 = 242 plants

The seabeach amaranth is a small annual plant with rounded, waxy leaves and reddish stems. It grows low to the ground and colonizes beaches between the high tide line and the dune area.

Seabeach Knotweed

(Polygonum glaucum)
NY State listed rare

2002 = <100 plants
2003 = 1,077 plants
2004 = 1,251 plants
2005 = 934 plants

This annual plant is found on bare or sparsely vegetated sections of the beach and overwash zones, dune-hollows, pond shores and margins of saline marshes.

Poison ivy can cause an irritating rash even before its distinctive "leaves of three" emerge.

A "questing" tick waits for a host near the end of a blade of grass.

Help keep wildlife wild. Use a camera or binoculars from a distance for a close-up view of animals.
Never feed deer or other wild animals.

Enjoy Fire Island Safely

Fire Island National Seashore offers many types of recreational opportunities for community members and day use visitors. However, the natural world of the park is not free from hazards. Please follow these safety guidelines for an enjoyable visit.

- Stay on the boardwalk to avoid poison ivy. This plant is abundant on Fire Island on dunes and in forests, and can take the form of a shrub or a vine.
- Wear shoes on boardwalks to avoid splinters. While most wooden boardwalks are being replaced with recycled plastic lumber, there are still many walkways and railings that can produce painful splinters.
- Avoid grassy areas and check yourself frequently for ticks. If bitten, remove the tick with fine-tipped tweezers and consult a doctor. Dog ticks and lone star ticks are easier to notice than the pinhead-sized deer ticks. Deer ticks and lone star ticks are known to transmit the Lyme disease spirochete; other ticks can infect people with additional illnesses.
- Use sunscreen and insect repellant as needed. While most of the mosquitoes on the island are not the species that carries West Nile Virus, infected *Culex* mosquitoes have been found on Fire Island.
- Follow safe boating procedures and etiquette, and wear life jackets.
- Swim in life-guarded areas.
- Watch for rapid changes in weather conditions and lightning when on or near the water.

Adhere to all Park Rules

All natural and cultural features within Fire Island National Seashore are protected by law. Thank you for respecting regulations.

- Stay off the dunes and do not damage plants.
- Do not feed, touch, or harass wildlife; animals can be unpredictable and dangerous.
- When and where permitted, pets must be on a 6-foot leash and under physical control.
- Pets, kites, and glass containers are not permitted on life-guarded beaches.
- Stay out of all areas fenced for wildlife and plant protection.
- Metal detectors may not be possessed on park lands.
- Dispose of trash properly. Day use visitors are asked to participate in the park's Carry-In, Carry-Out program to reduce garbage on the island.
- Fire Island personal watercraft (PWC) use is only permitted in the marked channels into some communities. PWCs must remain at least 1,000 feet away from shore in the Atlantic Ocean; in the bay, PWCs must be 1,000 feet away from shore on the western end of Fire Island, and 4,000 feet away from the shore east of the western boundary of Sunken Forest. PWCs are not permitted into Sailors Haven, Barrett Beach/Talisman, Watch Hill or Old Inlet.
- Additional regulations are enforced.

Fire Island Driving Distances

(in miles)

	Robert Moses State Park Bridge	Fire Island Lighthouse	Kismet	Saltaire	Fair Harbor	Atlantique	Robbins Rest	Ocean Beach	Seaview	Ocean Bay Park	Point O'Woods	Sunken Forest	Sailors Haven	Cherry Grove	Fire Island Pines	Barrett Beach/Talisman	Water Island	Davis Park	Watch Hill	Long Cove	Bellport Beach	Old Inlet	Wilderness VC	Moriches Inlet
Fire Island Inlet	2.4	4.7	5.6	5.9	6.7	7.3	7.8	8.2	8.6	9.1	9.5	10.4	10.9	11.8	12.9	14.3	15.1	16.6	17.5	18.3	21.2	22.9	24.6	30.7
Robert Moses State Park Bridge		2.3	3.2	3.5	4.3	4.9	5.4	5.8	6.2	6.7	7.1	8.0	8.5	9.4	10.5	11.9	12.7	14.2	15.1	15.9	18.8	20.5	22.2	28.3
Fire Island Lighthouse			0.9	1.2	2.0	2.6	3.1	3.5	3.9	4.4	4.8	5.7	6.2	7.1	8.2	9.6	10.4	11.9	12.8	13.6	16.5	18.2	19.9	26.0
Kismet				0.3	1.1	1.7	2.2	2.6	3.0	3.5	3.9	4.8	5.3	6.2	7.3	8.7	9.5	11.0	11.9	12.7	15.6	17.3	19.0	25.1
Saltaire					0.8	1.4	1.9	2.3	2.7	3.2	3.6	4.5	5.0	5.9	7.0	8.4	9.2	10.7	11.6	12.4	15.3	17.0	18.7	24.8
Fair Harbor						0.6	1.1	1.5	1.9	2.4	2.8	3.7	4.2	5.1	6.2	7.6	8.4	9.9	10.8	11.6	14.5	16.2	17.9	24.0
Atlantique							0.5	0.9	1.3	1.8	2.2	3.1	3.6	4.5	5.6	7.0	7.8	9.3	10.2	11.0	13.9	15.6	17.3	23.4
Robbins Rest								0.4	0.8	1.3	1.7	2.6	3.1	4.0	5.1	6.5	7.3	8.8	9.7	10.5	13.4	15.1	16.8	22.9
Ocean Beach									0.4	0.9	1.3	2.2	2.7	3.6	4.7	6.1	6.9	8.4	9.3	10.1	13.0	14.7	16.4	22.5
Seaview										0.5	0.9	1.8	2.3	3.2	4.3	5.7	6.5	8.0	8.9	9.7	12.6	14.3	16.0	22.1
Ocean Bay Park											0.4	1.3	1.8	2.7	3.8	5.2	6.0	7.5	8.4	9.2	12.1	13.8	15.5	21.6
Point O'Woods												0.9	1.4	2.3	3.4	4.8	5.6	7.1	8.0	8.8	11.7	13.4	15.1	21.2
Sunken Forest													0.5	1.4	2.5	3.9	4.7	6.2	7.1	7.9	10.8	12.5	14.2	20.3
Sailors Haven														0.9	2.0	3.4	4.2	5.7	6.6	7.4	10.3	12.0	13.7	19.8
Cherry Grove															1.1	2.5	3.3	4.8	5.7	6.5	9.4	11.1	12.8	18.9
Fire Island Pines																1.4	2.2	3.7	4.6	5.4	8.3	10.0	11.7	17.8
Barrett Beach/Talisman																	0.8	2.3	3.2	4.0	6.9	8.6	10.3	16.4
Water Island																		1.5	2.4	3.2	6.1	7.8	9.5	15.6
Davis Park																			0.9	1.7	4.6	6.3	8.0	14.1
Watch Hill																				0.8	3.7	5.4	7.1	13.2
Long Cove																					2.9	4.6	6.3	12.4
Bellport Beach																						1.7	3.4	9.5
Old Inlet																							1.7	7.8
Wilderness Visitor Center/Smith Point Bridge																								6.1

National Park Service
U.S. Department of the Interior

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